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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kris Vandermeulen

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EXAMINER

MARINI, MATTHEW G

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,548	Applicant(s) VANDERMEULEN ET AL.	
	Examiner MATTHEW G. MARINI	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-58 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 and 40-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-39 and 53-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/9/10 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25, 27, 29, 31, 32, 36, 53, and 54-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (4,974,238).

With respect to claim 25, Kobayashi et al teaches in Fig. 1 a printing apparatus comprising a printer mechanism (conventionally found in a copier and/or printer, Col. 1 lines 21-24) arranged to print an image onto an image receiving substrate; a reader (20) arranged to read identifiers (12 and 12') associated with consumables (i.e. drum 10) accepted in the printing apparatus (i.e. used for printing); a storage medium (30) in the printing apparatus arranged to hold a list (i.e. table 31) of any previously used identifiers

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associated with empty consumables (Col. 3 line 67 to Col. 4 line 8), said list (31) arranged to be updated with identifiers (12 and 12') of subsequent empty consumables (i.e. drums that have reached their useful life span, Col. 4 lines 9-14, or at least close to it); and a processor (40) arranged to compare an identifier (12 or 12') read by the reader (20) with the list (31) of any previously used identifiers and to generate an invalid indication (i.e. alarm to the user, 46) if there is a match (Col. 2 line 62 to Col. 3 line 10), wherein the invalid indication includes an internal control signal which at least causes an error message (Col. 4 line 47) to be displayed on a display (indirectly taught in Col. 4 line 47) of the printing apparatus.

With respect to claim 27, Kobayashi et al teaches in Fig. 1 a printing apparatus wherein the storage medium (30) is arranged to hold a table (31) comprising a plurality of identifier fields (as seen in Fig. 1) associated with respective status fields (i.e. area 34, containing the count data).

With respect to claim 29, Kobayashi et al teaches in Fig. 1 a printing apparatus wherein the processor (40) is arranged to load into one of said identifier fields (i.e. empty space) an identifier read by the reader (20) which does not match a previously used identifier (Col. 4 lines 5-8).

With respect to claim 31, Hilton et al teaches in Fig. 1 a printing apparatus further comprising a usage monitor (counter, 44) for monitoring the usage of the consumable (Col. 3 lines 6-10).

With respect to claim 32, Hilton et al teaches in Fig. 1 a printing apparatus wherein the processor (40) is arranged to update the status field (area 34 of Fig. 1) to indicate the amount of consumable (i.e. drum) remaining based on the usage monitored by the usage monitor (44).

With respect to claim 36, Kobayashi et al teaches in Fig. 1 in combination, a printing apparatus (Col. 1 lines 21-24) and a consumable (drum 10) associated with an identifier (12 or 12'), wherein the printing apparatus comprises: a printer mechanism (conventionally found in a copier and/or printer, Col. 1 lines 21-24) to print an image onto an image receiving substrate; a reader (20) arranged to read identifiers (12 and 12'); a storage medium (30) in the printing apparatus arranged to hold a list (i.e. table 31) of any previously used identifiers associated with empty consumables (Col. 3 line 67 to Col. 4 line 8), said list (31) arranged to be updated with identifiers (12 and 12') of subsequent empty consumables (i.e. drums that have reached their useful life span, Col. 4 lines 9-14, or at least close to it); and a processor (40) arranged to compare an identifier (12 or 12') read by the reader (20) with the list (31) of any previously used identifiers and to generate an invalid indication (i.e. alarm to the user, 46) if said consumable has been used and emptied (i.e. past a predetermined amount) such that

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there is a match between said identifier read by the reader (20) and said list (31) of previously used identifiers (12 or 12') associated with empty consumables, wherein the invalid indication (46) includes an internal control signal which at least causes an error message (Col. 4 line 47) to be displayed on a display (indirectly taught in Col. 4 line 47) of the printing apparatus, and wherein said processor (40) is arranged to permit a printing operation if said consumable (10) is not associated with one of said previously used identifiers (i.e. a new consumable) such that there is not a match between said identifier (12 or 12') read by the reader (20) and said list (31) of previously used identifiers associated with empty consumables.

With respect to claim 53 and 54, Kobayashi et al teaches in Fig. 1 a printer mechanism, wherein the storage medium (30) comprises a column of unique identifier fields (i.e. area 32, 34 and 36 of table 31), one or more corresponding status fields, and a blacklist of numbers of empty cartridge, including the list of any previously used identifiers associated with empty consumables (Col. 3 line 64 to Col. 4 line 14 and Fig. 3).

With respect to claim 55, Kobayashi et al teaches in Fig. 1 a printing apparatus comprising a printer mechanism (conventionally found in a copier and/or printer, Col. 1 lines 21-24) arranged to print an image onto an image receiving substrate; a reader (20) arranged to read identifiers (12 and 12') associated with consumables (i.e. drum 10) accepted in the printing apparatus (i.e. used for printing); a storage medium (30) in the printing apparatus arranged to hold a list (i.e. table 31) of any previously used identifiers

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associated with empty consumables (Col. 3 line 67 to Col. 4 line 8), and a processor (40) arranged to compare an identifier (12 or 12') read by the reader (20) with the list (31) of any previously used identifiers and to generate an invalid indication (i.e. alarm to the user, 46) when a consumable (10) inserted in the printing apparatus has been used and emptied such that there is a match (Col. 2 line 62 to Col. 3 line 10) between said identifier read by the reader (20) and said list (31) of previously used identifiers (12 or 12') associated with empty consumables, wherein the invalid indication (46) includes an internal control signal which at least causes an error message (Col. 4 line 47) to be displayed on a display (indirectly taught in Col. 4 line 47) of the printing apparatus, and wherein said processor (40) is arranged to permit a printing operation if said consumable (10) is not associated with one of said previously used identifiers (i.e. a new consumable) such that there is not a match between said identifier (12 or 12') read by the reader (20) and said list (31) of previously used identifiers associated with empty consumables.

With respect to claim 56, Kobayashi et al teaches in Fig. 1 a printing apparatus comprising a printer mechanism (conventionally found in a copier and/or printer, Col. 1 lines 21-24) arranged to print an image onto an image receiving substrate; a reader (20) arranged to read identifiers (12 and 12'); a storage medium (30) in the printing apparatus arranged to hold a list (i.e. table 31) of any previously used identifiers associated with empty consumables (Col. 3 line 67 to Col. 4 line 8), and a processor (40) arranged to compare an identifier (12 or 12') read by the reader (20) with the list

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(31) of any previously used identifiers and to generate an invalid indication (i.e. alarm to the user, 46) if there is a match (Col. 2 line 62 to Col. 3 line 10), wherein the invalid indication includes an internal control signal which at least causes an error message (Col. 4 line 47) to be displayed on a display (indirectly taught in Col. 4 line 47) of the printing apparatus, wherein preventing the printing operations until maintenance is performed (i.e. printing operations ca not be implemented).

With respect to claim 57, Kobayashi et al teaches in Fig. 1 in combination, a printing apparatus (Col. 1 lines 21-24) and a consumable (drum 10) associated with an identifier (12 or 12'), wherein the printing apparatus comprises: a printer mechanism (conventionally found in a copier and/or printer, Col. 1 lines 21-24) arranged to print an image onto an image receiving substrate; a reader (20) arranged to read identifiers (12 and 12'); a storage medium (30) in the printing apparatus arranged to hold a list (i.e. table 31) of any previously used identifiers associated with empty consumables (Col. 3 line 67 to Col. 4 line 8), and a processor (40) arranged to compare an identifier (12 or 12') read by the reader (20) with the list (31) of any previously used identifiers and to generate an invalid indication (i.e. alarm to the user, 46) if there is a match, wherein the invalid indication (46) includes an internal control signal which disables the printing apparatus (by sending a error message to the user, 46) such that printing operations can not be implemented (until maintenance is preformed, i.e. drum 10 is replaced).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26, 28, 30, 33-35, 37-39, 55 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (4,974,238) in view of Klinefelter et al. (WO 00/43932).

With respect to claims 26, Kobayashi et al. teaches all that is claimed in the above rejection of claim 25, but teaches an optical reader as the reader rather than an RF coil.

Klinefelter et al. teaches in Fig. 2 a similar printing apparatus where an RF coil, 42, is used to read an identifier off a consumable, i.e. ribbon cassette, 14.

Because both Hilton et al. and Klinefelter et al. teach structure used for reading an identifier off a consumable, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the optical reader of Kobayashi et al. with the RF coil of Klinefelter et al. where both achieve the predictable result of reading an identifier.

With respect to claim 28, Kobayashi et al. as modified by Klinefelter et al. teaches in Fig. 1 of Kobayashi et al. a printing apparatus wherein the storage medium

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(30) is arranged to hold a table (31) comprising a plurality of identifier fields (as seen in Fig. 1) associated with respective status fields (i.e. area 34, containing the count data).

With respect to claim 30, Kobayashi et al. as modified by Klinefelter et al. teaches in Fig. 1 of Kobayashi et al. a printing apparatus wherein the processor (40) is arranged to load into one of said identifier fields (i.e. empty space) an identifier read by the reader (20) which does not match a previously used identifier (Col. 4 lines 5-8).

With respect to claims 33-35, Kobayashi et al. teaches all that is claimed in the above rejection of claim 25, but fails to teach the consumable being a supply of an image thermal receiving substrate, where the usage monitor comprises an end of substrate detector.

Klinefelter et al. teaches in Fig. 2 a similar printing apparatus where the consumable is a supply of a thermal image receiving substrate, where an end of substrate detector, 50, is used to detect an end of the substrate.

Because both Kobayashi et al. and Klinefelter et al. teach structure used for reading an identifier off a consumable, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the consumable with another where both types of consumables achieve the predictable result of forming an image on a substrate.

With respect to claims 37-39, Kobayashi et al. teaches all that is claimed in the above rejection of claim 36, but fails to teach the consumable being a cassette in which comprises a spool of the thermal image receiving substrate.

Klinefelter et al. teaches in Fig. 2 a similar printing apparatus where the consumable is a cassette, 14, in which comprises a spool of the thermal image receiving substrate.

Because both Kobayashi et al. and Klinefelter et al. teach structure used for reading an identifier off a consumable, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the consumable with another where both types of consumables achieve the predictable result of forming an image on a substrate.

With respect to claim 58, Kobayashi et al teaches in Fig. 1 in combination, a printing apparatus (Col. 1 lines 21-24) and a consumable (drum 10) associated with an identifier (12 or 12') (note the identifier, 12, contains markings that are used for counting the remaining amount of the consumable drum), wherein the printing apparatus comprises: a printer mechanism (conventionally found in a copier and/or printer, Col. 1 lines 21-24) to print an image onto an image receiving substrate; a reader (20) arranged to read identifiers (12 and 12'); a monitor (44) for reading said markings indicative of the remaining amount of the consumable; a storage medium (30) in the printing apparatus arranged to hold a list (i.e. table 31) of any previously used identifiers associated with empty consumables (Col. 3 line 67 to Col. 4 line 8), wherein the printing apparatus is

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arranged to monitor the usage of said consumable (10) using said markings (i.e. part of 12) and to store said unique identifier in said storage medium (30) when said consumable is empty (Fig. 1, i.e. count storage area 34 and code area 32). Kobayashi does not teach the consumable being an image receiving substrate.

Klinefelter et al. teaches in Fig. 2 a similar printing apparatus where the consumable is a supply of a thermal image receiving substrate, where an end of substrate detector, 50, is used to detect an end of the substrate.

Because both Kobayashi et al. and Klinefelter et al. teach structure used for reading an identifier off a consumable, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the consumable with another where both types of consumables achieve the predictable result of forming an image on a substrate.

Response to Arguments

Applicant's arguments with respect to claims 25 and 36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW G. MARINI whose telephone number is (571)272-2676. The examiner can normally be reached on Monday-Friday 8:00 to 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew Marini

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854